



Research Paper

ETHNOBOTANICAL STUDIES ON KOKNI TRIBE OF MAHARASHTRA

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Abstract

The Kokni tribe residing in Nasik, Dhule, Thane and Nandurbar district of Maharashtra depends on plant wealth for their livelihood. The ethnobotanical study revealed that plants species belonging to different families were used by the tribal as medicine for curing different ailments. Tribal system of medicine is an age old system like other traditional systems. It is transmitted through verbal means only. But about the origin of the large number of medicines, practically nothing is known. The remedies resorted to in various diseases are quite startling. The tribal people found efficacy of herbs on their empiric knowledge. But their uses are not so far been recorded in particular medicinal property which the tribal attributed to the plants is not known. The glory of tribal medicine is that where modern medicine fails tribal medicine starts. The method of preparation of crude drugs and their application along with the scientific and local names of the plant used by the tribal in the present investigation is given. The knowledge on the ethnomedicinal uses of plants by Kokni tribal can help to discover new drugs to cure various ailments provided the data given is scientifically evaluated.

Key words: Kokni, Tribal, Ethnomedicine, Bhagat.

INTRODUCTION

Plant wealth is renewable resource and has substantially contributed to our economic development. It provides goods and services to the people and industry. Plants are interwoven with our culture. The vital role the plants play in the life and economy of all forest dwelling tribes, rural and urban population is well known. They are traditionally providing food, medicine and other forest products for our daily needs. This knowledge has now emerged as a science of Ethnobotany. [1]

The Kokni tribal resides in different pockets of Nasik, Dhule, Thane and Nandurbar district of Maharashtra. The Kokni are one of the important tribe of Maharashtra. The original name of the community was lost with their migration far

back in the historical past. The name Kokni is said to be derived from Konkan, the western strip of Maharashtra. [2]

MATERIALS AND METHODS

In the present study field surveys was conducted during 2016 to 2018 in tribal villages of Nasik, Dhule and Nandurbar districts of Maharashtra. Field trips were organized in such a way as to encounter different tribal hamlets and forest pockets at regular intervals in different seasons. The information on plants was collected through arranging night meetings and dialogues with Bhagat and knowledgeable people. During the study, the questionnaire was prepared and first-hand information on the uses of the plants was gathered from the bhagats and tribal people.

The plants used by the tribal for various ailments were collected from the field, pressed, dried and mounted on the herbarium sheets. The plants were identified using Flora of Maharashtra and compared with the specimens in Blatter Herbarium, St. Xavier's College, Mumbai. [3-6]

RESULTS

Abrus precatorius L. (Papilionaceae)

Local name: Gujubal

Uses: Leaves are crushed in water and extract is given to reduce body heat. Juice from the leaves is given to reduce coughing. Leaves are chewed to reduce throat pain. Root is crushed in water and extract is given to females to stop white discharge. Roots are chewed to treat kidney stone and reduce pain.

Achyranthes aspera Linn. (Amaranthaceae)

Local name: Sonaru

Uses: Fresh root is crushed and juice is administered orally twice a day as an antidote for snake bite.

Argemone mexicana L. (Papaveraceae)

Local name: Pivala Dhotra

Uses: Root is tied in the hair of pregnant women to reduce labor pain. After successful delivery it is taken out. 2 – 3 inch long root is crushed and juice is filtered through a cloth and extract is given for excess menstruation. Roots are burnt and chewed 2-3 times a day for cough and cold. Roots are crushed in water and extract is given for burning during urination and fever. Root extract is dropped in ear to cure earache. Roots are chewed 5 times a day for 5 days to cure piles. Root extract is used for kidney stones.

Azanza lampas (Cav.) Alef. (Malvaceae)

Local name: Rani Bhendi

Uses: Leaf juice is given for loose motions. Extract of leaves is given for excess white discharge to females. Fibers are extracted from stems by the tribal for making ropes.

Balanites aegyptiaca (L.) Del. (Zygophyllaceae)

Local name: Hinganbet

Uses: The fruit paste is applied on piles 4 to 5 times to reduce burning and pain. Fruit powder is consumed by females as contraceptive. Fruit pulp is orally administered to cure cough. The tribal used fruits for washing clothes.

Boswellia serrata Roxb. ex Colebr. (Burseraceae)

Local name: Salai

Uses: Paste of bark is used for muscular pains. Bark is tied with clean cloth on joints to reduce pain. Gum obtained from plant is used to cure rheumatism. Gum is burnt on floor and smoke is given for fever and giddiness. Paste of leaves and root is used for scorpion sting. Decoction of bark is used for cough and cold. Roots are crushed and paste is applied against scorpion sting. Wood is used as fuel wood.

Biophytum sensitivum (L.) DC. (Oxalidaceae)

Local name: Lajalu

Uses: Entire plant is crushed and 1-2 drops of juice are administered through the nose to cure epilepsy.

Bryophyllum pinnatum (Lam.) Oken (Crassulaceae)

Local name: Padpan

Uses: Leaves are crushed and juice is given twice a day for a kidney stone. Leaf juice is administered orally for excessive menstruation to women. Oil is applied on leaves, heated and tied on the broken bone after setting the bone and eaten once a day.

Casearia graveolens Dalzell. (Flacourtiaceae)

Local name: Kirmira

Uses: Fruits are eaten by the tribal. Stem pieces are kept in pocket or caps by the tribal to keep the poisonous reptiles away in the field and forest.

Caralluma adscendens (Roxb.) R.Br. (Apocynaceae)

Local name: Sabar

Uses: Stem is cut into 5 equal pieces and administered orally at an early stage of paralysis. Every day 1 piece is given for 5 days. It is given within 1 or 2 days of paralysis attack.

Careya arborea Roxb. (Lecythidaceae)

Local name: Kumbhi

Uses: Bark is crushed and extract is given twice, daily for stomach disorders and piles. Bark extract is used to reduce white discharge in females. Fruit pulp is eaten for curing asthma. Fruits are eaten by tribal. Wood is used as fuel-wood.

Cassine glauca (Rottb.) Kuntze. (Celastraceae)

Local name: Bhutya palas

Uses: Leaf paste is used for wound healing. Leaves are dried and crush to powder. This powder is snuffed to get relief from cough and head ache. The stem pieces are tied in all corners of houses to keep away evil powers and spirits. The cows are tied on toggle made from wood of the plant to keep away the evils.

Cissampelos pareira L. (Menispermaceae)

Local name: Tanyal

Uses: Leaves and fruit are crushed together and the extract is given as antidote for mad dog bite. Fruits are dried and crushed to make powder and half teaspoon of powder mixed in water is given to stop vomiting. Seeds are rolled in *Bauhinia racemosa* Lam. leaves and smoked twice a day for 5 days for swelling of gums and toothache. Root is crushed in water and extract is given to small children for dysentery. The maternal uncle of the infant put bangles made from the stem and put in hand legs of child in the morning. The tribal believe that by putting these bangles the loose motions stops within 1 or 2 days. Root is finely crushed and paste is applied on wounds.

Cleome viscosa L. (Cleomaceae)

Local name: Piwalya

Uses: Leaves are crushed and the paste is applied on wounds, twice a day for 3 days. Leaves are crushed and the 1-2 drops of juice is dropped in each nostril to stop headache, earache and toothache. Seeds are taken internally to cure bleeding piles. Seed decoction is given in fever. Entire plant is crushed and applied to cure inflammation. Leaf juice is taken orally to cure fever.

Cryptolepis dubia (Burm.f.) M.R.Almeida. (Periplocaceae)

Local name: Mendhol

Uses: Latex is applied on forehead for headache. 3 piece of stem in a string is tied around neck to cure severe headache. Latex is applied externally around boils to cure it.

Cucumis setosus Cogn. (Cucurbitaceae)

Local name: Mekha

Uses: Seeds are dried, burnt and fumes are taken into mouth to cure toothache.

Diplocyclos palmatus (L.) C.Jeffrey (Cucurbitaceae)

Local name: Mahadev pind

Uses: Fruits are crushed and juice extracted from fruits is given for 2 times a day as an antidote for snakebite. Leaves are crushed and 2-3 drops of leaf juice are administered in the ear for earache. The dried seeds are given orally to women for infertility treatment.

Echinops echinatus Roxb. (Compositae)

Local name: Utkataya

Uses: Roots are fried and eaten for a cough and cold. Roots are soaked in water for 15 minutes and then crushed in water and extract is given 3 times a day for fever and stomach ache. Roots are crushed with water to make a paste and this paste is applied for rheumatism and muscular pain.

Enicostemma axillare (Poir ex Lam.) A. Raynal. (Gentianaceae)

Local name: Kadvya

Uses: Entire plant is dried and crushed to powder. This powder is given along milk or honey to cure hernia and rheumatism. Leaf extract is applied externally against scorpion sting. Root extract is used for stomach ache and burning during micturition. Entire plant extract is used for fever.

Ficus arnottiana (Miq.) Miq. (Moraceae)

Local name: Khadak Payar

Uses: Bark decoction is used for eczema. Latex is applied on pimples and boils. Latex is mixed in rice and eaten by females to increase lactation.

Haldina cordifolia (Roxb.) Ridsdale (Rubiaceae)

Local name: Haldu

Uses: The bark is crushed and extracted juice is given to victim of snake bite as antidote. Stem is crushed and extract is warmed and used for back ache. Stem and leaves are crushed and paste is applied on wounds. Leaves are warmed and tied on stomach to cure stomach ache.

Hygrophila auriculata (Schumach.) Heine (Acanthaceae)

Local name: Palaskata

Uses: The entire plant is crushed with water and boiled and the extract is given for 3 days in the morning for urinary problems and pain during urination. Roots are crushed in water and extract is given for stomach ache. Roots are chewed when blood comes out with urine. The root is crushed and the extract is given to non-lactating women to increase lactation for 3-4 days.

Ipomoea carnea Jacq. (Convolvulaceae)

Local name: Sundarpan

Uses: Leaves are heated and kept under innerwares for piles for 7 days. Everyday new leaf is used and it is an effective remedy for piles.

Lagenaria siceraria (Molina) Standl. (Cucurbitaceae)

Local name: Dhudhi bhopala

Uses: Juice of leaves is used for body heat and kidney stone. Leaf juice is applied externally for piles. Leaf paste is applied on cracked heels and fractured bones. 'Pawari' a musical instrument is prepared from the fruit which is used during festivals by Kokni tribal. The dried and ripened fruits are used as water container by the Kokni tribal.

Limonia acidissima Groff. (Rutaceae)

Local name: Kavath

Uses: Fruit pulp is used to stop loose motions. The fruits are given to reduce cough and stop vomiting. Dried leaves are burnt and smoke is given to reduce fever. Juice of leaf is applied for body heat. The seeds are used as fish poison. Ripe fruit pulp is eaten by tribal.

Martynia annua L. (Martyniaceae)

Local name: Wagnakhya

Uses: Root is rounded and kept under hip of pregnant women for normal delivery. Leaves are chewed to cure mouth ulcers. Seed extract is applied at the place of scorpion sting. Sticky leaves are kept around mattresses or cots for trapping bed bugs. Sometimes pasted on wall also to trap house flies.

Meyna spinosa Roxb. ex Link. (Rubiaceae)

Local name: Aliv

Uses: Small pieces of stem bark are tied on ear to reduce cough. The leaves are applied with Coconut (*Cocos nucifera* L.) oil, slightly warmed and tied on swellings. Seeds are crushed and powder is given for Kidney stone. Fruits are eaten by tribal people.

Nanorrhinum ramosissimum (Wall.) Betsche. (Scrophulariaceae)

Local name: Tan

Uses: Juice of plant is given to induce lactation in feeding mothers.

Oroxylum indicum (L.) Vent. (Bignoniaceae)

Local name: Tetu

Uses: Extract of bark is used as antidote against snakebite. *Piper betle* L. (Paan) and Calcium carbonate (Chuna) is prohibited for one month to the victim. Decoction of bark is used to regularize the menstrual cycle.

Oxalis corniculata L. (Oxalidaceae)

Local name: Ambushi

Uses: Plant is crushed in water and extract is used as antidote for snakebite. The leaf extract is used to increase the sperm count in males. The leaves are crushed and paste is applied on boil and forehead to relieve headache. Leaves are chewed by the tribal when they are thirsty.

Pentanema indicum (L.) Ling (Asteraceae)

Local name: Bhangsar

Uses: The plant paste is orally given with water once in a month as a contraceptive. Roots are used as tooth brush for toothache. The plant is dried and crushed to paste and given to females in water once in a month as a contraceptive.

Pergularia daemia (Forssk.) Chiov. (Apocynaceae)

Local name: Dadari

Uses: Leaf is broken and latex is collected and applied on eczema for 4-5 days. Root is crushed & juice is extracted and administered orally to stop vomiting and loose motions.

Rungia repens (L.) Nees. (Acanthaceae)

Local name: Jhunja

Uses: Plant is cut into small pieces and kept in water for 15 minutes and used as an antidote for snake bite and given to a patient with 1 hour interval. The plant is cut in

pieces and soaked in water overnight. Next morning the water is filtered and half cup of water is given twice a day for 4 days for cough and cold. 2-3 inch long root is crushed and kept in water for 10 minutes and filtered. This filtrate is administered orally for muscular pain & rheumatism twice a day for 3 days.

Semecarpus anacardium L. f. (Anacardiaceae)

Local name: Bhilava

Uses: The juice of nut shell is applied on joint pains and piles. Nut is rubbed on injury caused by thorns. The nuts are used in magico religious belief by tribal and kept with them to protect from evil powers.

Thysanolaena latifolia (Roxb. ex Hornem.) Honda (Poaceae)

Local name: Sarphghat

Uses: Tuber is directly chewed 2-3 times in the morning for tonsillitis which quickly relieves pain for three days.

Ventilago denticulata Willd. (Rhamnaceae)

Local name: Arashishi

Uses: Paste of bark is applied on forehead for headache. Powder of bark is applied on wounds. Tribal tie a small piece of twig in black thread on arm to cure half headache. Some tribal wrap the stem piece around ear to cure headache. Root extract is used as antidote against snake bite.

Xanthium strumarium L. (Asteraceae)

Local name: Lepadi

Uses: Juice from leaves is mixed with 'Jaggery' and applied on boils. Roots and leaves of small plants are chewed directly to make paste. Then it is kept on tooth to reduce toothache. The fruits are hanged around ear to relieve headache. The leaves are crushed and juice is dropped in ear to cure ear ache.

DISCUSSION

The tribal mostly depend on the plants found around them in wild. The knowledge gained about the efficacy of plants by the tribes for generations is kept secret and is orally communicated to their descendants. It was observed that the tribal people used all these species very carefully. [7]

The utility of folk medicines or traditional medicines is widely spread particularly in aboriginal people. On account of lack of health centers, doctors and the expenses for their treatment, there is a high percentage of tribal and rural population depending on it. The different plant species are used to treat different human ailments

in the modern period. It appears necessary to screen than on modern scientific grounds.

The knowledge on the folklore uses of the medicinal plants leads to open up ways for effective utilization of herbal medicines in future. Further work in this direction may help in collecting more information about the uses of plants in traditional medicine by the tribal communities.

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REFERENCES

- [1] Patil, M. V., and Patil, D. A., 2006, Ethnobotany of Nasik District, Maharashtra, Daya Publishing House, Delhi.
- [2] Singh, K.S., 1998, People of India, National series, Vol. V, India's Communities, Anthropological survey of India, Oxford University Press, New Delhi.
- [3] Almeida, M. R., 1996, Flora of Maharashtra, Vol. I, Orient Press, Mumbai.
- [4] Almeida, M. R., 1998, Flora of Maharashtra, Vol. II, Orient Press, Mumbai.
- [5] Almeida, M. R., 2001, Flora of Maharashtra, Vol. III, Orient Press, Mumbai.
- [6] Almeida, M. R., 2003, Flora of Maharashtra, Vol. IV, Orient Press, Mumbai.
- [7] Kuvar, S. D., & Bapat, U. C., 2010, Medicinal plants used by Kokani tribals of Nasik district Maharashtra to cure cuts and wounds, Indian Journal of Traditional Knowledge, 9 (1) 114 – 115.